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Ron,

Here are my thoughts on what we should present to Quinn-Spear.

Brief summary of games to date

Overall results of the Gaming

Biological

Various levels of improvement should be summarized, species by species, relative to pre-Accord requirements. That is, Accord plus upstream AFRP improvements, in-Delta AFRP improvements, gaming improvements, federal proposal [late 1998] improvements. We should present these various levels of improvement so we can explain to Q-S the significance of the gaming improvements relative to other improvements previously made and to those proposed by federal agencies late last year. In other words, we should be trying to answer the "so what" question for gaming. Russ can do this using the improvement equations.

These levels of improvement should also be relative to some overall parameters of biological conditions for each species. We should not, for example, present, as we did last time, estimated changes in smolt direct mortality relative to direct mortality without the game. I thought we were misleading Q-S by showing, for example, a 20% decrease in direct mortality when in fact it was a 20% decrease in direct mortality of about 1% of the outmigrating smolts.

In addition, we should identify the assumptions that underlie the improvement estimates. This is a major point of contention with the water users, and we should not be presenting results in which contentious assumptions are implicit. We should identify those assumptions (the ones underlying Russ's equations) and give Q-S some indication of how the results would have changed if different assumptions had been made.

I envision some sort of tabular summary, perhaps as below. The entries could be numerical or narrative. The table could be followed by a list of general conclusions, a general description of the assumptions, and some indication of how the general conclusions would have changed if the assumptions had been different.

	IMPROVEMENT RELATIVE TO PRE-ACCORD			
SPECIES	ACCORD + UPSTREAM AFRP	IN-DELTA AFRP	GAMING	1998 FEDERAL PROPOSAL
SALMON				
WINTER				
SPRING				
FALL				
SACRAMENTO				
SAN JOAQUIN				
LATE FALL				
DELTA SMELT				
SPLITTAIL				
STRIPED BASS				

General conclusions

Assumptions

How the conclusions would have changed with different assumptions

Water supply

Ideally, we would present exceedance curves for south of Delta deliveries for each game and for the scenarios used above for biological results. If that is not possible, we should present deliveries for average years and for the two droughts. We should also present changes in those deliveries relative to the Accord plus upstream AFRP because this is the base the water users are interested in. Assuming we can ever pin down exactly what "200 and 400 KAF/year more than the Accord" means, we should also compare water supply results with those two goals.

We should then present general conclusions drawn from these data.

Water Quality

We should use the same bases for comparison as above (pre-Accord, Accord + upstream AFRP, in-Delota AFRP, federal proposal). The CUWA guys could choose the relevant measures (that is, locations in the Delta or at treatment plant intakes, constituent concentrations, and averaging periods). Narrative results could be used if numerical comparisons are not possible.

Insights: examples only listed below

The higher the allowed pumping rate, the more resources EWA must have to curtail those high rates.

Surface storage is more valuable than groundwater storage because of the input-output rates.

Delta island storage was particularly useful, but water quality concerns must be resolved.

Use of low priority storage in existing reservoirs was valuable.

Etc.

General Conclusions

The EWA has numerous advantages and should be pursued.

Have not yet produced a game that satisfies all parties.

Important deficiencies are as follows:

(List these)

Possibilities for overcoming these deficiencies

(List these)

Plans for Future Gaming

This should flow logically from the above analysis.

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